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An Essay
on
Bilious Fever. by
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of
Delaware

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Considering the extensive prevalence, the variety of causes by which it may be produced, and the mortality, occasioned by its neglect or improper treatment Bilious Fever, becomes one of the most interesting and important diseases, to which the attention of the practitioner is attracted.

It prevails most extensively in the southern and middle sections of the United States, though no part of it is entirely exempt, and within few years it has extended itself throughout thier whole extent.

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It generally makes its appearance about the middle of Summer, and continues increasing untill ~~about~~ the middle of Autumn, When it begins to decline untill its progress is almost entirely checked by the first of Winter; it prevails to a greater extent when weather which has been hot and dry is succeeded by heavy and long continued rains.

This disease is considerably influenced by the constitution of the patient, by climate, ~~the~~ and the Season in which it occurs; in the robust and plethoric, it is exceedingly violent and inflamatory, demanding the most prompt and vigorous depletion; in the weak and relaxed it is less violent; and in the intemperate and dipipated it assumes a low Typhoid character.

When it occurs early in the season it is less violent than in the more advanced period of it.

The remote cause of Bilious Fever is I believe generally admitted to be Marsh Miasmata, but of their precise nature or Modus operandi we have nothing certain, every person who has written on the subject adopting views peculiar to himself, and rejecting as foolish or visionary what had been advanced before. but whatever may be their nature of their manner of introduction into the system of this we are certain, that their first impression, is made on the Stomach and through the medium of that organ, the rest of the system become affected.

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citing causes. however we have more certainty, they are vicissitudes of weather, irregularities in diet or drink, exposure to night air, loss of sleep, excessive venery, anxiety of mind, fasting, or in fact what ever either directly or indirectly debilitates the system.

The symptoms which indicate an attack of Bilious Fever are. languor, anxiety, heaviness, and listlessness; these continuing for a short time, the patient is attacked by severe rigors which are succeeded by a high fever, he now complains of severe pain in his head, backs, and extremities, his skin becomes hot and dry, he complains of great thirst, his tongues is covered with a dark brown fur, his pulse becomes full, hard, and quick, he has a sensation of severe pain and heat, in the region of the Stomach,

nausea and a vomiting of bilious matter now ensue his skin becomes yellow, and delirium or coma supervenes.
at this period a remission of these symptoms generaly take place, and the patient flatters himself that his indisposition will only be temporary; but in this he is deceived, for in the course of twenty four hours all the symptoms return with increased violence. in this manner the disease proceeds day after day untill it is either arrested by our remedies or terminates fatalley.

Such is the course bilious fever pursues and the character it assumes: but frequently it associates itself with other diseases, making the diagnosis more obscure, and the treatment more difficult, and indeed there is scarcely

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a disease that occurs in the district in which I reside, that this form of fever does not accompany.

When the pulse becomes soft, slow, and regular, the tongue clean, the skin moist and cool, the alvine discharges natural in colour, odour, and consistence, the urine turbid and depositing a sediment, the functions of the mind continue undisturbed, and particularly when in the advanced stages of the disease the patient picks his nose or complains of Stanpury, we may calculate almost with certainty on a favourable termination of the Disease

But if on the contrary, the skin should continue hot & dry, the tounge foul and parched, the countenance flushed, they eye wild. if there should be much delirium or coma, impa-

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tience of light and sound, and particularly in the advanced stages of the disease if Subsultus Tendinum and Singultus should appear and the patient takes no notice of his family or friends and seems altogether unconcerned as to the event of his disease the result will almost certainey be fatal.

Examination post Mortem shew considerable inflamation of the internal coat of the Stomach and Intestines, the Liver and Spleen are also found in a state of inflamation and congestion, and in the Brain marks of inflamation are frequently found particularly where there was during the course of the disease much determination to that organ.

The indications in the treatment of Bilious Fever are twofold. first, to moderate the violence of reaction. Secondly to restore tone to the system.

The remedies to be employed in answering the first indication are those which directly deplete the system, and of this class the Lancet is perhaps the most important; but it should be prescribed with great caution, particularly in persons of a delicate constitution, and where the disease occurs late in the season. in case however of a vigorous constitution, when there is much determination to the head, great force and frequency of the arterial system, the skin hot and dry, and other symptoms of inflamation; Bloodletting may be prescribed with great advantage and the operation repeated as often as the circumstances of the case will justify

Next in importance and perhaps of equal utility in the treatment of this complaint are Emetics; they should never be omitted unless they are contrain

dicated by the existence of a Hernia, some peculiarity in the constitution of the patient, or by Pregnancy. They operate now not ~~only by~~ merely by evacuating the Stomach, but they determine to the surface, relieve the pain in the head, appease Nausea, and equalise the circulation.

The best article of this class of remedies is the Antimonium Tartarisatum, and to be effectual it should be frequently repeated, it may be given in doses of one, two or three grains ~~dissolved~~ in Water, every ten or fifteen minutes until the effect is produced; and its operation may be greatly assisted by any of the diluent drinks.

In cases when active vomiting does not seem so necessary, a combination of Emetic Tartar and Specac

manna in the proportion of one or two grains of the former to ten or fifteen of the latter answers very well.

The Stomach being sufficiently evacuated by the repeated use of Emetics we must now direct our attention to the state of the alimentary canal, which will generally be found in a state of constipation, though frequently there are discharges of considerable quantities of dark fetid Matter. in either of these cases purgatives are equally demanded as they prevent the accumulation of or carry away large collections of matter which are productive of great irritation, and without the removal of which the cure would be greatly retarded.

To effect this purpose Calomel is perhaps to be preferred, it may be given either alone or in combination, with

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Jalap. Gamboge. Scammony or some article of the class leptandy in its operation; one of the best combination of it is with Gamboge in the proportion of fifteen grains of Calomel to two or three of Gamboge; it is better to give the Calomel in large doses as it will be found to operate more speedily and effectually, to agree better with the Stomach, and to produce leptomina than when administered in smaller doses.

As the Stomach at this stage of the disease is sometimes so irritable that Cathartics will not remain on it, we must have recourse to Enemata, and an excellent one is prepared by dissolving an ounce of the Sulphate of Soda in a pint of a strong decoction of Senna leaves; this may be repeated at intervals of half an hour untill

until the effect is produced.

At this stage of the disease the stomach is so exceedingly irritable as to call for particular treatment; and to relieve this most distressing symptom a great variety of remedies have been suggested, the best of which I believe are. Lime Water, and Milk. a Decoction of Mint. Carbonic acid gas; this may be given in the form of the Effervescing draught and the common Seltzer Water; the application of a sinapism or Blister to the region of the Stomach likewise answers an excellent purpose. bathing the feet in Warm Water containing common Salt or Cayenne Pepper will frequently succeed when all other have failed, but what answers better than any I have mentioned particularly when it occurs late in the disease, is an opium Pill which has been made

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a considerable length of time. an Enema containing fifty or sixty drops of the Lincture of opium or a suppository of opium itself will also frequently succeed.

The alimentary canal being now sufficiently evacuated, and the Stomach being perfectly calm, recourse may be had to the Neutral Salts with great advantage; administered in small doses and repeated at intervals of one or two hours as the case may require, they constitute a very important part in the treatment of this disease: while they keep the bowel gently open they seem also to possess a very considerable refrigerant powers: The Sulphates of Soda and Magnesia are I believe superior to any of their kindred preparations; and their power may be considerably increased by the addition

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of the Emetic tartar. an excellent formula is as follows.

℞. Lulphas Magnesia	℥i
Tartris Antimonii	gr i
Succus Limonis	℥i
Aqua	℥iv

The dose of this mixture is a tablespoonfull every two or three hours.

Great advantage may also be derived from the use of some of the refrigerants and particularly of the Nitrate of Potash; the powers of this article are also very much increased by the addition of others, as Calomel and Emetic Tartar; in the following proportions they constitute a very excellent prescription.

℞. Nitriate of Potash —	℥i
Calomel	gr. Xij a. XVi
Emetic Tartar	gr i

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This is to be divided into eight or ten powders one of which is to be given every two or three hours

The Saline or Effervescing Draught may likewise be used here with utility.

The System being now completely reduced by the exhibition of the preceding remedies, Diaphoretics may be had recourse to with the most beneficial results. of all the modes of treating fever, sweating is perhaps of the earliest date, and the most popular; but we should be very cautious in their administration; they should never be prescribed while there is much arterial excitement, nor while the patient is under a Cathartic course of Medicine; we should never attempt to force a perspiration, but should always use the gentlest means. The Antimonial prep

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asations are decidedly superior to all the articles of this kind and of these the Emetic tartar ought always to be preferred, minute in its dose, devoid of taste and almost of taste it is particularly applicable to the case of children and petulant adults.

As regards the precise modus operandi of this article, however there is a great variety of opinion, by Dr Cullen it is asserted that unless it produces nausea or vomiting it is of little service; by Fordyce this is denied and he declares that in proportion as nausea is produced its diaphoritics power is diminished.

Determined to satisfy myself with regard to this matter, I made a number of experiments with the article under circumstances as near

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lysimicar as possible; the result of which confirmed the opinion that the diaphoretic effects of the Antimonial preparations do not depend on the degree of Nausea they produce,

The Emetic Tartar may either be given alone or in combination with Calomel and the Nitrate of Potash in the proportions above mentioned; it should be given in small doses at first and these should be carried to the greatest possible extent without exciting nausea: an excellent mode of administering it is in combination with the Spirits of Nitre, in the proportion of twenty or thirty drops of the wine of Antimony to one drachm of the Nitre.

At this period the Doves Powder given in Doses of ten grains and repeated every three or four hours will also be found highly serviceable,

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The operation of the diaphoretic medicines is greatly facilitated by the application of Warmth to the surface, and the most convenient mode of administering this remedy is in the form of vapour — and here too Blisters applied to the extremities are of the highest utility, they assist the operation of the preceding remedies. calm irritation and relieve determination to the head; but it is only to the more advanced stages of Fever that blisters are applicable; if administered early they will uniformly be found to aggravate all the Symptoms,

All our Remedies failing we must now have recourse to Mercury and here it should be given so as to excite a salivation; to produce this effect it should be ~~given~~ administered in

small dose combined with opium or some astringent (to prevent it from running off by the bowels), and repeated at short intervals, it may also be applied by friction to the surface in the form of an ointment. a Salivation in this disease is one of the most important remedies as it rarely fails to effect a cure if it can be induced.

The Disease now being completely subdued our next object should be to restore tone to the System; and this may be effected by the administration of Tonics. and of these the Peruvian Bark is the best, it may either be given alone in powder or in decoction combined with some of the aromatics. as orange Peel. Cinnamon, Cloves, &c. an excellent combination of this article is with the carbonate of Potash or Soda and the

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Serpentaria in the following proportions

℞ - Peruvian Bark ℥ss

Pulv. Serpentaria ℥j

Carbonate of Soda ℥ss

This should be divided into four powders and given at interval of three or four hours.

For this purpose Quassia Gentian and Colombo; will also be found to answer exceedingly well.

The Mineral Acids particularly the nitric and muriatic are of great utility especialy where there are visceral obstructions.

As there is great liability to a relapse in Bilious Fever patients who have suffered an attack should be particularly carefull in avoiding exposure to the causes which produced it. they should be clothed in Flannel. thier diet

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light and nutritious - their exercise moderate and taken in the middle of the day, but above all they should not fatigue themselves or commit excesses of any kind.

By steadily pursuing the course above recomended we shall rarely be disapointed in effecting a speedy and effectual cure.

Finis